JOHN MAURER

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EDUCATION

- **University of Colorado at Boulder:** M.A. in Geography, May 2006. Advisor: Dr. Konrad Steffen. Thesis topic: Local-scale snow accumulation variability on the Greenland ice sheet from ground-penetrating radar (GPR) (click here for details).
- **University of Colorado at Boulder:** Graduate Certificate in Remote Sensing, Program in Atmospheric and Oceanic Sciences (PAOS), Fall 2001 - May 2003.
- **Stanford University**, Palo Alto, CA: B.A. Music, *with distinction*, June 1999. Specialization in "Music, Science and Technology" (MST) through the Center for Computer Research in Music and Acoustics (CCRMA).
- **Hopkins Marine Station** (HMS), Stanford University, Monterey, CA. Winter 1998. Marine science and underwater acoustics (click here for details).

HONORS AND AWARDS

- RCUH 2016 Outstanding Employee of the Year nominee, Research Corporation of the University of Hawaiʻi (RCUH), 2016. 1 of 25 final nominees out of ~2,800 RCUH employees statewide.
- CIRES 2007 Outstanding Performance Award, Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado at Boulder, 2007. 1 of 2 selected annually for the Service Award out of ~500 employees.
- Deans' Award for Academic Accomplishment, Stanford University, 1997. 1 of 11 selected out of 6500 undergraduates.

PROFESSIONAL EXPERIENCE

- **Pacific Islands Ocean Observing System** (PacIOOS), University of Hawaiʻi at Mānoa, Honolulu, HI, USA. July 16, 2009 - present:
  - PacIOOS Data System Engineer
- **National Snow and Ice Data Center** (NSIDC), University of Colorado, Boulder, CO, USA. March 1, 2001 - June 1, 2009:
  - Web/Database Applications Engineer, September 13, 2004 - June 1, 2009.
  - User Services Representative, July 1, 2003 - September 10, 2004.
  - Operations Technician II, May 1, 2002 - June 30, 2003.
  - Operations Technician I, March 1, 2001 - April 30, 2002.

PUBLICATIONS

- Potemra, J., J. Maurer, and E.S. Burns (2016), Providing Oceanographic Data and Information to Pacific Island Communities. In P. Diviacco, A. Leadbetter, and H. Glaves (Eds.). *Oceanographic and Marine Cross-Domain Data Management for Sustainable Development*. 425 pp. Hershey, PA: IGI Global.
- Maurer, IV,, J.A. (2006), Local-scale snow accumulation variability on the Greenland ice sheet from ground-penetrating radar (GPR). Master's thesis, University of Colorado at Boulder. Available from http://www2.hawaii.edu/~jmaurer/gpr/.

PRESENTATIONS

- Maurer, J. (2019), Ocean Observations: Data Storage and Transfer. *Fourth Data Buoy Cooperation Panel (DBCP) Pacific Islands Training Workshop on Ocean Observations and Data Applications (DBCP-PI-4)*. September 14, 2019. Honolulu, HI, USA. [Click here to view (7.2 MB).]
- Maurer, J. and F. Langenberger (2019), Data Streams at PacIOOS: From Acquisition to End Products. *Hawaii Surveying And Mapping Conference 2019*. March 21, 2019, Honolulu, HI, USA. [Click here to view (7.4 MB).]
- Maurer, J. and F. Langenberger (2018), PacIOOS Projects Using Open Source GIS for Web Visualization. *Hawaii Geographic Information Coordinating Council (HIGICC) Oahu Geospatial Expo 2018*. June 22, 2018, Honolulu, HI, USA. [Click here to view (4.9 MB).]
- Potemra, J. T., J. Maurer, R. Coughlin, R. Buzzetti and S. DeCarlo (2010), Data services for Pacific Island communities: Developing the Pacific Integrated Ocean Observing System. *IMDIS-2010 Proceedings, IFREMER/SISMER*, M. Fichaut and V. Tosello, Editors, 224 pp.
- Maurer, J. and K. Steffen (2007), Local-scale snow accumulation variability on the Greenland ice sheet from ground-penetrating radar (GPR). Presentation #NS14A-06. *American Geophysical Union (AGU) Fall Meeting*. December 10-14, 2007, San Francisco, CA, USA. [Click here to view abstract; click here to view presentation (5.1 MB).]

SOFTWARE/TOOLS DEVELOPMENT

- **PacIOOS Website: Data Visualization**. Dynamic online data visualization of both raster maps and time series plots of PacIOOS forecast models and point-based observations; e.g., http://pacioos.org/waves/model-maui/ (wave forecast) and http://pacioos.org/waves/buoy-waimea/ (wave buoy), etc.
- **PacIOOS Voyager**. A Google Maps API for dynamically viewing and downloading maps and data related to Hawai'i and other U.S.-affiliated Pacific Islands as part of the Pacific Islands Ocean Observing System (PacIOOS). http://pacioos.org/voyager/
- **Hawai'i Tiger Shark Tracking**. Animates the movements of several tiger sharks in near real-time who are fitted with satellite tags. http://pacioos.org/projects/sharks/
- **Hawai'i Sea Level Rise Viewer**. Maps future sea level rise exposure areas around the State of Hawai'i using GeoServer and the Leaflet mapping API. http://pacioos.org/shoreline/slr-hawaii/
- **Hawai'i and Pacific Islands King Tides Project**. For documenting coastal inundation and flooding. Mobile-friendly photo submission web app (http://pacioos.org/king-tides/), mapping and display platform (http://pacioos.org/king-tides/map.html), and authenticated admin interface.
- **Hawaiian Ko'a (Coral) Card: Coral Health Assessments**. For monitoring coral bleaching events. Mobile-friendly data submission web app (http://pacioos.org/coral-card/), mapping and display platform (http://pacioos.org/coral-card/map.html), and authenticated admin interface.
- **Ocean Tipping Points: Hawai'i Case Study**. A Leaflet-based online mapping platform for dynamically viewing and querying maps of environmental and anthropogenic drivers of coral reef ecosystems around the main Hawaiian islands. http://pacioos.org/projects/otp/
- **PacIOOS Data Search**. A user-friendly search interface for finding geospatial datasets at PacIOOS, powered by pycsw and PostGIS to utilize OGC Catalog Service for the Web (CSW) search standards. http://pacioos.org/data/search/
- **PacIOOS Metadata**. Web-accessible folders (WAF) for FGDC and ISO 19115 XML geospatial metadata records including XSLT stylesheets for dynamic HTML presentation. http://pacioos.org/data/metadata/
- **GPR IDL Tools**. IDL and ENVI software tools for opening, viewing, filtering, and analyzing Malå Geoscience RAMAC™ ground-penetrating radar (GPR) data. http://gpr-idl-tools.sourceforge.net

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PROFESSIONAL SERVICE

- Technical reviewer for:
  - Baghat, Karim (2015), *Python Geospatial Development Essentials*. Packt Publishing. 192 pp.
  - Lawhead, Joel (2015), *Learning Geospatial Analysis with Python*. Packt Publishing. 367 pp.